REPLACEMENT CLAIMS

31. A method for treating substrates in at least one of two tanks, each of which can be filled with at least two treatment fluids, said method being carried out for each of said tanks and including the steps of:

a) preparing a first treatment fluid in a processing unit that is common to both of said tanks, wherein said processing unit has a capacity designed for a single treatment tank;

b) charging one of said tanks with substrates;

c) introducing said treatment fluid into said one tank for a predetermined period of time;

d) introducing at least a second treatment fluid into said one tank; and

e) removing said substrates from said tanks;

wherein said steps are controlled in parallel and in a time staggered manner, in the respective tanks in such a way that a period of time sufficient for the preparation of said first treatment fluid is provided between the end of step c) in said one tank and the start of step c) in the other of said tanks.

32. A method according to claim 31, wherein said first treatment fluid is discharged prior to said introduction of said second treatment fluid.

33. A method according to claim 31, wherein said first treatment fluid is displaced out of said one tank prior to said introduction of said second fluid.

34. A method according to claim 31, wherein said preparing step comprises preparing said first treatment fluid from different chemicals, and wherein during said preparation said first treatment fluid is subjected to at least one of mixing and heating steps.

35. A method according to claim 31, wherein after conclusion of said step c) said first treatment fluid is at least partially returned to said processing unit.

36. A method according to claim 31, wherein preparation of said first treatment fluid and unloading of said tank at least partially overlap one another in terms of time.

37. A method according to claim 31, which includes the further step of introducing a third treatment fluid.

38. A method according to claim 37, wherein at least one of said second and said third treatment fluids is a rinsing fluid.

39. A method according to claim 37, wherein at least one of said second and said third treatment fluids are made available by means of respective treatment fluid supply units that are common to both of said tanks.

40. A method according to claim 31, wherein a single handling mechanism is provided for both charging and unloading both of said tanks.

41. A method according to claim 40, wherein for a charging and unloading of said one tank, said substrates are moved over said other tank, and wherein such movement is effected only during a rinsing process in said other tank.

42. A method according to claim 40, wherein one of said tanks is covered during a movement of said handling mechanism thereover.

43. A method according to claim 42, wherein said tank is covered by means of an essentially flat lid.

44. A method according to claim 40, wherein said handling mechanism accesses a common introduction/delivery station.

45. A method according to claim 31, wherein during removal of said substrates from a respective tank, said substrates are dried pursuant to the Marangoni principal.

46. An apparatus for treating substrates comprising:

two tanks that are fillable with at least two treatment fluids;

at least one first treatment fluid supply unit that is common to both of said tanks and has at least one treatment fluid processing unit, the capacity of which is designed for a single tank;

at least one second treatment fluid supply unit; and

a control unit for a time staggered control of parallel process steps of respective ones of said tanks in such a way that between process steps that utilize the same treatment fluid, a period of time remains that is sufficient for a preparation of that treatment fluid.

47. An apparatus according to claim 46, wherein each of said tanks is provided with a respective rapid discharge valve.

48. An apparatus according to claim 47, wherein each tank is provided with an overflow.

49. An apparatus according to claim 48, wherein said at least one treatment fluid processing unit is provided with at least one of a chemical mixing device and a heating device.

50. An apparatus according to claim 48, wherein said at least one first treatment fluid supply unit has a fluid circuit.

51. An apparatus according to claim 48, which includes a device for returning treatment fluid from said tanks to said at least one first treatment fluid supply unit.

52. An apparatus according to claim 51, which includes a reprocessing unit within said at least one first treatment fluid supply unit.

53. An apparatus according to claim 48, which includes a common substrate handling mechanism for a charging and unloading of both of said tanks.

54. An apparatus according to claim 53, which includes a movable cover for at least one of said tanks.

55. An apparatus according to claim 54, wherein said cover is an essentially flat lid.

56. An apparatus according to claim 48, which includes an introduction/delivery station for making substrates available for both of said tanks.

57. An apparatus according to claim 48, which includes a device for concentrating substrates for treatment in said tanks.

58. An apparatus according to claim 48, wherein at least two of an introduction station, said device for concentrating said substrates, and said two tanks are disposed in a row.

59. An apparatus according to claim 57, wherein said two tanks are disposed on different sides of said device for concentrating the substrates.